



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/905,337

07/13/2001

Shoji Kodama

16869B-026500US

6430

20350

7590

06/05/2006

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

BLAIR, DOUGLAS B

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/905,337		KODAMA, SHOJI	
	Examiner		Art Unit	
	Douglas B. Blair		2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/15/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/15/2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 24 recites the limitation "wherein upon forwarding the information" in the preamble of the claim. There is insufficient antecedent basis for this limitation in the claim. For examination purposes it will be assumed that claim 24 was meant to depend on claim 23 and not claim 20.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2142

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7 and 9-30 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent Number 5,774,660 to Brendel et al..

7. As to claim 1, Brendel teaches a system for optimizing data access, comprising: a file server capable of communicating with one or more clients (col. 9, lines 18-26, the load balancer is the file server); and a plurality of storage elements organized into pairs for storing a plurality of files, each pair having a master storage element and at least one mirrored storage element, and each mirrored storage element having a copy of data stored on the master storage element (col. 9, lines 41-51, servers 52A-C are the mirrored storage elements); wherein the file server maintains file information on where each of the plurality of files is stored on which pair of storage elements (col. 10, line 54-col. 11, line 2. the load balancer maintains a directory table of locations of different files. Note that Brendel does not require all of the servers to be “paired” but at least some servers are, specifically those carrying the same files, therefore Brendel anticipated the claims), and maintains access load information regarding each one of the pair of storage elements (a load balancer inherently maintains access load); and wherein when a client requests file information for a requested file from the file server, the file server determines which pair of storage elements has the requested file, and further determines which storage element within the pair of storage elements is to be accessed based upon use of the storage system (col. 9, lines 18-64, the load balancer picks a server based on use).

8. As to claim 2, Brendel teaches the system according to claim 1 wherein the plurality of storage elements is a plurality of disk drives (col. 10, lines 48-52, each server has a disk drive).

Art Unit: 2142

9. As to claim 3, Brendel teaches the system according to claim 1 wherein the plurality of storage elements are provided in a single storage system (In Brendel the system with the load balancer and servers can be considered a “single storage system”).

10. As to claim 4, Brendel teaches the system according to claim 1 wherein the plurality of storage elements are provided in at least two storage systems (In Brendel each particular server could be considered a storage system by itself).

11. As to claim 5, Brendel teaches the system according to claim 1 further comprising: a plurality of host computers; wherein the file server resides on one of the plurality of host computers; and wherein the one or more clients reside on remaining ones of the plurality of host computers (Figure 6).

12. As to claim 6, Brendel teaches the system according to claim 1 further comprising apparatus configured to synchronize data stored on each pair of storage elements (In col. 10, line 54-col. 11, line 2, since the same files are contained on the pairs of servers they are considered synchronized).

13. As to claim 7, Brendel teaches the system according to claim 1 wherein the master storage element and the at least one storage element within a pair are contained in a single storage system (See the reasoning for claim 3).

14. As to claim 9, Brendel teaches the system according to claim 1 wherein if it is determined that a mirrored storage element is to be accessed for the requested file and the mirrored storage element which is to be accessed contains a latest copy of data for the requested file stored on the corresponding master storage element, the client directly retrieves the requested file from the mirrored storage element (col. 11, lines 3-23).

Art Unit: 2142

15. As to claim 10, Brendel teaches the system according to claim 9 wherein if it is determined that a mirrored storage element is to be accessed for the requested file and the mirrored storage element which is to be accessed does not contain a latest copy of data for the requested file stored on the corresponding master storage element, the latest copy of data for the requested file stored the corresponding master storage element is retrieved from the corresponding master storage element and then forwarded to the client (col. 11, lines 3-23).

16. As to claim 11, Brendel teaches the system according to claim 1 wherein the file information on where each of the plurality of files is stored on which pair of storage elements includes file allocation lists (the directory pointed out above).

17. As to claim 12, Brendel teaches the system according to claim 1 wherein when determining which of the storage elements within the pair of storage elements having the requested file is to be accessed, consideration is given to ensure that all the storage elements within the pair of storage elements having the requested file are accessed in a substantially balanced manner (the load balancer as pointed out above).

18. As to claim 13, Brendel teaches the system according to claim 1 wherein upon determining which of the storage elements within the pair of storage elements having the requested file is to be accessed, the file server forwards information relating to the determination to the client thereby allowing the client to retrieve the requested file from the determined storage element (col. 11, lines 3-27).

19. As to claim 14, Brendel teaches the system according to claim 13 wherein upon forwarding the information relating to the determination to the client, the file server updates the

Art Unit: 2142

access load information to ensure accurate monitoring of access balance of the pairs (inherent to the load balancer; a load balancer must be dynamic otherwise it would be useless).

20. As to claims 15-36, they feature the same limitations found in claims 1-7 and 9-14 and are rejected for the same reasons as claims 1-7 and 9-14.

Response to Arguments

21. Applicant's arguments with respect to claims 1-7 and 9-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B. Blair whose telephone number is 571-272-3893. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

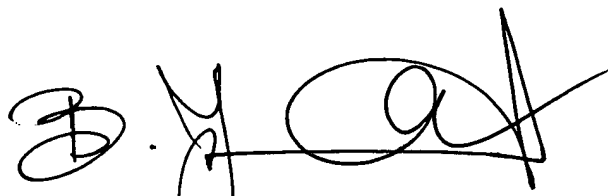
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2142

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Douglas Blair

DBB



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER